INSTRUCTION FOR USE

EDIT 1.00

Natural DSL

tressis italia®

DENTAL CERAMIC
ITALIAN STYLE

Natural® CERAMIC SYSTEM
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DSL
Natural®
HT
LF
ZiR
MicroLayer
Stains

1. INDICE

2. EXPERTISE IN DENTAL CERAMICS

NATURAL CERAMIC SYSTEM

Natural Ceramic System (NCS for short) is the Italian ceramic system produced by Tressis Italia srl.

The metal-ceramic technique has been applied in dental technology since the early 1960s. At the beginning, ceramics were fired exclusively on precious gold-based alloys.

With the evolution of dental alloys, various increasingly performing materials have appeared in the dental sector both from an aesthetic point of view and from a physical and chemical point of view.

The growing needs for functionality and aesthetics of metal-ceramic restorations commit us to produce materials that allow the dental technician to obtain high aesthetic results with ever-increasing quality.

From these assumptions the Natural Ceramic System was born, a ceramic system that combines excellent workability characteristics with the latest generation materials to offer the technician a material that is easy to use, stable and reliable.

The Natural ceramic system offers the possibility of creating natural and aesthetic restorations, in a simple and easily replicable way.

NCS is proposed as a tool for solving clinical cases from the simplest to the most complex and individualized.

Natural DSL lithium silicate based ceramic pads have been formulated to combine the great aesthetic capabilities, typical of all-ceramic, with robustness allowing the technician to create not only veneers, inlays and jacket crowns, but also three-element bridges.

The Natural DSL pads are calibrated on universal coloring, so as to be able to cover the entire A-D scale with a few colors, easily customizable with all the most advanced techniques: surface painting with Natural Stains colors; micro-layering with Natural CRYSTAL gel masses and layering with Natural ZiR powder masses.

Natural DSL pads are available in three degrees of opacity to obtain an excellent aesthetic result in many cases, even in less than ideal conditions.

3. PRODUCT CHARACTERISTICS

NATURAL DSL

Natural DSL is a lithium silicate glass ceramic for dental restorations using the all-ceramic technique.

The coloring of the Natural DSL pads is the universal Tressis Italia one (LIGHT, MEDIUM and DARK) in three degrees of opacity, differentiated by numbering:

150+ Universal with high translucency (opacity approx 40%);

160+ Universal with intermediate translucency (opacity approx 60%)

170+ Universal low translucency (opacity approx 85%)

The skilful mix of transparency and fluorescence allow the reconstruction of natural teeth such as inlays, veneers, crowns and bridges (up to 3 elements with 1 bridge element, up to the second premolar) in all-ceramic.

The composition of Natural DSL consists of a heterogeneous mix of components. The silicates that make up Natural DSL are generally defined as structural silicates, as they form, with the heat treatment, very stable three-dimensional networks. In addition, the mix of materials gives the ceramic a low abrasion index and excellent physical and chemical stability in the oral cavity.

Lithium silicate (SiO_2Li_2O) is a main component of Natural DSL: in fact it constitutes the crystalline phase of the ceramic and has a dual function, on the one hand it makes the shapes stable at high temperatures, on the other it increases the flexural strength of the ceramic.

The lithium silicate crystals increase the resistance of Natural DSL so that it can be used to create all-ceramic bridges (of 3 elements max and up to the 2nd premolar).

Metal oxides are added to this composition of Natural DSL ceramic to optimize the optical characteristics: the added oxides in fact modify the various optical aspects of the ceramic such as opacity, translucency (ability to diffuse light inside the element), opalescence, fluorescence and transparency.

As a last element, synthetic colored pigments are added, which define the color of each mass after firing, and which are not subject to calcination or chromatic variation over the years, but remain stable both in the firing phases and over time: for this reason the colors of an element made with Natural DSL remain unchanged and faithful over time.

CLASSIFICATION:		LITHIUM SILICATE GLASS CERAMIC
CHEMICAL COMPOSITION:		SiO_2, Li_2O, K_2O, Al_2O_3, ZnO, ZrO_2, P_2O_5
CLASSIFICATION ISO 6872:2019		TYP: 2 CLASS: 3 a
COEFFICIENT of THERMAL EXPANSION (25-450°C) [$10^{-6}\cdot K^{-1}\pm 0.5$]		2x : 10.0 4x : 10.0
GLASS TRANSITION TEMPERATURE TG [°C±20]		2x : 520 4x : 520
RESISTANCE TO BENDING [MPa]	DETECTED VALUE ≥350 MPa	REQUIREMENT ISO 6872 >300 MPa
SOLUBILITY [µg / cm^2]	DETECTED VALUE < 40 µg/cm^2	REQUIREMENT ISO 6872 < 100 µg/cm^2

4. COEFFICIENT OF THERMAL EXPANSION (CTE)

NATURAL DSL

The thermal expansion coefficient, abbreviated with the acronym CTE or CET or WAK (in German-derived texts), indicates the dimensional variation of a material, in our case ceramic, in relation to the variation of the temperature and the number of firings carried out. ; the need to use different materials must be assessed in the light of the compatibility of the CTEs of the materials.

Our experience in the production of ceramics for different types of materials (zirconia, traditional alloys, high expansion alloys etc.) has led us to identify as a compatible material for Natural DSL ceramics, Natural ZiR ceramics and Natural Crystal ceramics.

The process of working with Natural DSL dental ceramic can be summarized schematically in the following steps: 1) the wax model of the restoration is poured into a cylinder with a specific coating for pressing the ceramic; 2) the investment cylinder is placed in a pre-heating oven to eliminate the molded wax part; 3) the ceramic pad is heated under vacuum up to the temperature defined by the instructions; 4) the ceramic pad is injected at high temperature into the investment mold , using a suitable ceramic furnace; 5) after the removal of the veneer the restoration can be finalized with the staining technique and / or with the Natural ZiR ceramic.

ATTENTION:
traditional modeling waxes contain titanium dioxide (TiO2), a material that has a chemical affinity with ceramic; to avoid discoloration, stains and inconsistent colors, it is recommended to use an ASH FREE wax, without titanium dioxide, to create the model to be pressed.

ATTENTION:
all-ceramic does not tolerate sudden changes in temperature, pay attention to the cooling phase which must also be modulated in relation to the shape, dimensions and volumes of the pressed structure.

ATTENTION:
in the modeling phase of an all-ceramic structure it must be borne in mind that the behavior of pressed ceramic is very different compared to an alloy or a zirconia; therefore it is essential to model the restoration anatomically, without reducing the structure too much, and bearing in mind that, if the restoration will be finalized with layering ceramic, it is necessary to maintain a ratio of 2/3 of pressed ceramic and a maximum of 1/3 of layered ceramic. If this relationship is disregarded, it is highly possible that the layered ceramic and the pressed ceramic will break (Fig. 4A).

Since all-ceramic tends to blend better in the oral cavity, drawing color from the surrounding elements much more than a ceramic on structure, it is advisable, in the wax modeling for pressing, to always make the restoration in its final form and then eventually reduce the areas to be layered with an aggressive and sharp sintered diamond bur at low revolutions; if possible wet the area to avoid overheating (fig. 4B).

All-ceramic offers the patient, dentist and dental technician the opportunity to create highly aesthetic restorations. The absence of opaque structures, whether metal or zirconia, allow the creation of a restoration that has optical properties very similar to natural dentition.

While the absence of an opaque structure is a huge advantage, it can cause problems if not managed correctly and / or in unsuitable cases: strong discoloration of the stumps, very dark devitalized elements and similar cases, can lead to have a non-optimal aesthetic result.

The choice of pads, color and opacity must necessarily take into account both the state of the abutments and the cementation protocol that will be carried out in the dental office.

Other very important factors for the realization of all-ceramic restorations are the thickness and the preparation: the thickness must take into account both the chewing function and the forces that are developed by it and the properties of the material which, never becoming liquid like a casting of alloy, it needs more space to flow well and not be missing.

It is advisable to always model with thicknesses appropriate to the processing; shape the rounded edges, not knife-edge, with thicknesses not less than 0.3mm to avoid lacks and / or areas of fragility.

As for the metal-ceramic tradition, the all-ceramic structure must have uniform volumes, with well-rounded edges and corners (fig. 4C).

The preparation of the abutments is a fundamental aspect for achieving a correct and durable restoration over time; is dealt with separately in detail in paragraph 7.

For details of the recommended minimum thicknesses for both single and bridge structures, refer to the table in paragraph 11.

fig. 4A

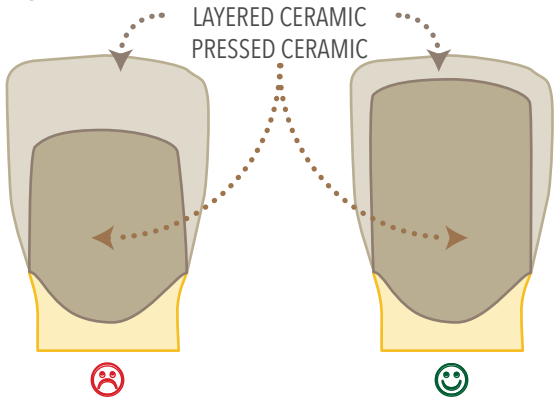


fig. 4B

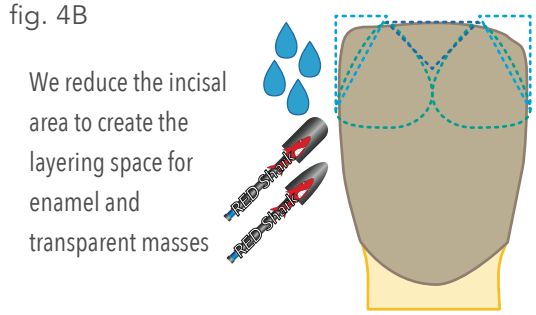
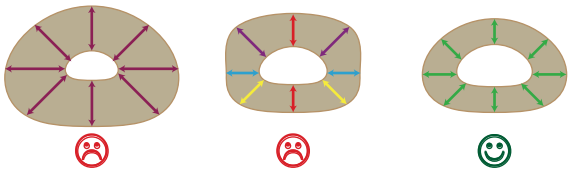


fig. 4C



5. LIGHT AND COLOR

NATURAL DSL

Dental ceramic has a far from simple purpose: to replicate the natural color of teeth, in extremely limited spaces and with a completely different material.

To obtain a result in line with expectations, faced with such an arduous task, it is necessary to proceed methodically and make an analysis of the elements, areas, chromaticity and value.

Natural dentin has different degrees of color and opacity, natural enamel can be translucent, transparent but also opaque.

The resulting chromaticity of an element is obtained through the diffusion of light: in natural teeth the diffusion of light is influenced not only by the surface but also by elements present in depth: this means that the colors of natural teeth are influenced by environmental conditions.

In different light conditions, such as natural light, neon, etc., the color effect can vary considerably.

Let's analyze and define some of the optical aspects that affect the final result.

TRANSPARENCY
The more transparent an element is, the more it is crossed by light; the more an element is transparent, the more the gray effect of the element will increase. On the contrary, the element is opaque; there will be a greater reflection of the light and therefore a greater chromatic effect.
MATT <--> TRANSPARENT

TRANSLUCENT
The more translucent an element is, the greater the diffusion of light inside it will be, increasing the three-dimensionality of the element; a translucent element is partially crossed by the light and creates a less transparent milky effect. A non-translucent element will appear flat.
THREE-DIMENSIONAL <--> FLAT

IRIDESCENCE
It is a typical property of the crystalline phase of some minerals: depending on the incident angle of light, the perceived color is different. In dental ceramics it is a little used feature as it cannot be controlled.

OPALESCENCE
It is a subset of iridescence, it is the behavior of an element similar to opal, limited to the color range between the shades of reddish and blue. This feature is widely used in ceramic masses especially in incisal masses to create liveliness.

FLUORESCENCE
It is the property of different materials to re-emit the received light radiation. Highly fluorescent components are added to aesthetic ceramics such as Natural DSL, which re-emit white-blue and yellow-orange colors. This property, very visible in special lighting conditions (e.g. Wood's light) also has the characteristic of creating a vital effect in conditions of diffused light and / or low light, making the dental restoration very similar, in terms of visual behavior, to the natural teething.

6. RESULT OF THE CERAMIC FIRING

NATURAL DSL

The correct use of ceramic pads for pressing involves the correct management of temperatures and injection times.

Natural DSL ceramic must be treated according to the temperatures and firing times as shown in the tables in paragraph 19; if you use a different oven than the F1 Digital Press, used to compile the tables, it is necessary to carry out tests before making real restorations.

The main parameters to check are:
- holding time;
- (final) injection temperature;
- injection time.

From the tests carried out it emerged that with different cooking temperatures it is possible to obtain very different results, even if only one parameter among those is varied.

ATTENTION:
The general principle that over-firing is better than under-firing does not apply to Natural DSL lithium-silicate ceramic: on the contrary, over firing leads to a weakening of the ceramic structure and possible cracks. and breaks.

Natural DSL ceramic is cooked correctly if, after divesting, the integral restoration is chromatic, lively and translucent; the surface is compact and homogeneous without roughness or spots; the edges are smooth and precise, equal to what was modeled in wax.

A very dull, milky or whitish appearance are signs of too high a temperature and / or too long an injection time.

The appearance of superficial bubbles, irregular surfaces and / or the presence of jagged edges indicate a final injection temperature that is too high.

If the restoration is missing in some areas (generally the closing edges) it may be due to too low final temperature or insufficient injection time.

During the tests to calibrate the thermal cycle, perform pressing cycles with variations of ± 10 ° C at a time; when the correct result is obtained, take note of the temperatures and program the pressing cycles according to the data detected.

ATTENTION:
pressing very large elements and bridges or several elements together makes it necessary to modify the pressing program; once the correct temperature has been identified, it is advisable to act on the injection time, modifying it as needed.

ATTENTION:
different brands, models and wear conditions can lead to very different cooking cycles; it is recommended to carry out tests before starting work.

ATTENTION:
the use of different cylinders involves the use of different programs, modified according to the size of the cylinder.

WARNING:
the x100gr cylinder must be used ONLY and EXCLUSIVELY for the creation of a single single element: a crown, a facet, an inlay; NEVER to make two elements even if they are small.

7. WARNINGS AND INDCATIONS

The Natural DSL ceramic system is made up of a range of high resistance press-pellets.

Natural DSL dental ceramic for die casting is NOT suitable for pressing on structures, alloys and / or zirconia.

WARNINGS AND CONTRAINDICATIONS:

Combination with materials other than the Natural Ceramic products mentioned and / or materials from other manufacturers.

Realization of restorations not mentioned.

Fabrication of restorations with wall thicknesses and connector cross sections smaller than those mentioned.

Dental ceramic and all-ceramic restorations made of glass ceramic are not recommended for patients with bruxism or parafunction or patients with substantially reduced residual dentition.

Not suitable for processing on strongly discolored abutments.

TECHNICAL WARNINGS:

Ceramics for dental use; processing must be carried out exclusively by qualified personnel.

During the processing of dental restorations (finishing, cleaning), dust and fragments can be released.

Protect eyes and respiratory tract by avoiding breathing dust.

During processing, the use of a vacuum cleaner, protective goggles and mask is recommended.

Given the diversity of ovens available on the market, the cooking conditions could be different. It is recommended that these variances in temperatures be taken into account.

All temperatures indicated are approximate values only, perform a cooking test before starting to work.

Avoid contact of the material with skin, eyes and mucous membranes.

The structures modeled in wax to be pressed with Natural DSL must be made with waxes suitable for the die-casting technique without titanium dioxide (TiO2). The use of traditional modeling waxes can lead to discoloration and breakage.

The cleaning of the spatulas and brushes used in processing must be scrupulous. Any external impurity can have negative effects on cooking. Danger of contamination.

Pay attention during the high temperature firing process and during the die casting process of the artifacts.

Danger of burns. Use pliers and gloves.

The reuse of pressing residues is not recommended: risk of discoloration, impurities, stress and breakage.

INVESTMENT WARNINGS:

The use of the T-Vest 2000 investment or other specific investments for lithium silicate presses is recommended.

The investment contains quartz powders. Do not breathe the dust.

If necessary wear a protective mask.

Carefully read the instructions for use of the investment before use.

Follow the instructions provided by the investment manufacturer.

STORAGE WARNINGS:

Storage in a dry place is recommended.

The ceramic material is synthetic, free of organic components and, in common storage conditions, does not undergo variations from temperature, sun, environmental humidity, etc; the possible drying of the paste product may take place over time, but does not affect the quality of the product: it will be sufficient to use the suitable liquid to restore the original consistency.

If properly stored, the product does not expire.

Before using the product, carefully read the instructions for use.

INSTRUCTIONS FOR USE:

Natural DSL is a dental ceamica and consists of a line of Pressed Pads (PRESS PELLETS).

Natural DSL is suitable for making all-ceramic elements, jacket crowns, 3/4 crowns, inlays, veneers and cosmetic veneers.

Natural DSL is indicated for making 3-unit bridges, with only one intermediate element, up to the second premolar.

COMPATIBILITY:

Natural DSL is compatible with Natural ZiR Ceramic powder for layering, and vice versa Natural DSL is compatible with Natural STAINS stains, with Natural LIQUIDS and with Natural CRYSTAL micro-layering materials.

GENERAL WARNINGS

PREPARATION:

Unlike ceramic fired on a metal framework or zirconium, the preparation indicated for an all-ceramic restoration is shoulder-only, both 90 ° and rounded (fig. 8A).

The finishing preparations are NOT indicated for integral ceramic elements, with the exception of cosmetic veneers which do not undergo masticatory load but have only aesthetic functions.

In the shoulder preparation, a circular groove depth of about 1mm is recommended and the preparation angle must be at least 6 ° (Fig. 8B).

All axial and occlusal edges must be rounded.

It is recommended to create homogeneous and smooth surfaces avoiding undercuts.

fig. 8B

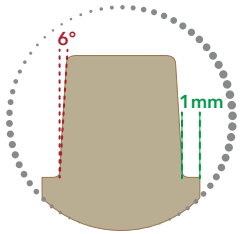
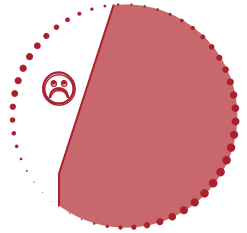


fig. 8A

90° SHOULDER preparation, suitable for any type of restoration

ROUND SHOULDER preparation, suitable for any type of restoration

FINISH preparation, contraindicated for full ceramic restorations both crowns and veneers



WRONG SHOULDER preparation, contraindicated for all types of restorations

8. VENEERS

The fabrication of all-ceramic restorations must take into account very important factors: type of preparation and thickness. These are necessary to obtain a satisfactory result not only from an aesthetic point of view, but also from a clinical and structural point of view. In this paragraph we will go to see, case by case, which are the main requirements to be met for each type of processing.

THIN VENEER (fig.8A)

The preparation must take place in the enamel. Do not bring the incisal limits of the preparation into the area of the abrasion surfaces and dynamic abrasion surfaces.

The minimum thickness of a thin veneer can be 0.30 mm in the cervical and labial area; on the incisal edge provide for a restoration thickness of 0.40 mm.

In the bibliography it is reported that, in case of sufficient vestibular space available, it is also possible to completely renounce a preparation; however, the "NO-PREP" approach is not recommended as it does not guarantee a correct cementation phase and does not ensure a good seal of the restoration over time.

VENEER (fig.8B)

The preparation of the abutment should, if possible, take place in the enamel.

Never bring the incisal limits of the preparation into the area of the abrasion surfaces and / or dynamic abrasion surfaces.

The development of chewing loads must be analyzed and controlled to prevent lateral movements from impacting the veneers.

The minimum thickness of a thin veneer can be 0.60 mm in the cervical and labial area; on the incisal edge provide for a restoration thickness of 0.70 mm.

ATTENTION:
the veneers, both thin and traditional, have a good aesthetic result as long as the abutments on which they will be cemented are vital and of a color compatible with the final result. The choice of a more or less opaque tablet can help to achieve the aesthetic result; a more opaque tablet as well as a deeper preparation allow to mask any slight discoloration.

fig. 8A

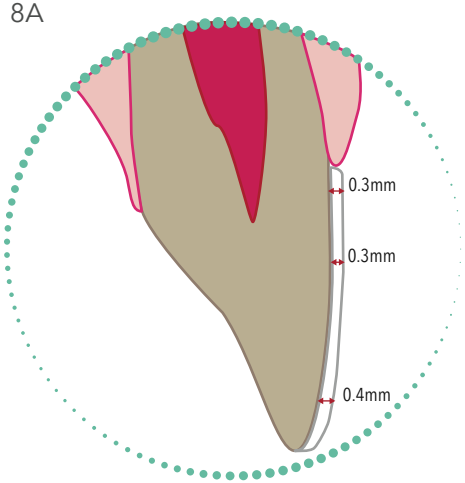
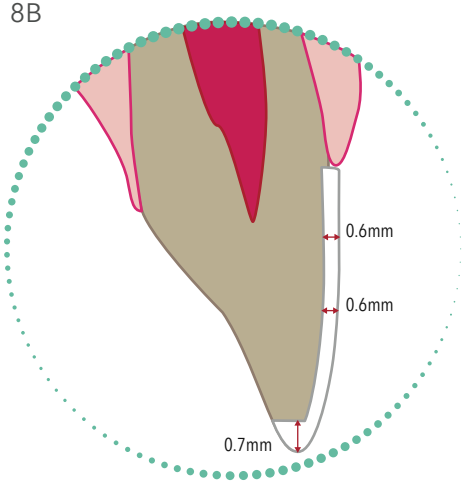


fig. 8B



9. CORONE A GIACCA

FRONT JACKET CROWN (fig.9A)

The front jacket crown allows the total and / or partial reconstruction of a frontal element.

Remember to round off all edges and edges of the preparation; the values shown are to be intended as minimum values to obtain a suitable result, different conditions of the abutment and periodontium can lead to deeper preparations.

Reduce the anatomical shape by respecting the minimum thicknesses indicated.

Shoulder preparation (or chamfer) with an angle of about 10 ° -30 °; shoulder width / circular chamfer of at least 1.00 mm.

Minimum reduction of incisal area 1.50 mm.

Reduction of the vestibular and palatal areas by a minimum of 1.20 mm.

For cementation proceed with self-adhesive cements; the preparation must have retentive surfaces and sufficient abutment height.

REAR JACKET CROWN (fig.9B)

The rear jacket crown provides for the complete rehabilitation of an element.

Very important, in the preparation phase, is the creation of smooth and regular surfaces, with well-rounded edges and corners. All the values reported are to be intended as minimum values to obtain a suitable result, different conditions of the abutment and periodontium can lead to deeper preparations.

Reduce the anatomical shape by respecting the minimum thicknesses indicated.

Shoulder preparation (or chamfer) with an angle of about 10 ° -30 °; shoulder width / circular chamfer of at least 1.50 mm.

Minimum reduction of incisal area 1.50 mm.

Reduction of the vestibular and palatal areas by a minimum of 1.50 mm.

For cementation proceed with self-adhesive cements, preferring self-polymerizing ones; the preparation must have retentive surfaces and a sufficient height of the abutment.

fig. 9A

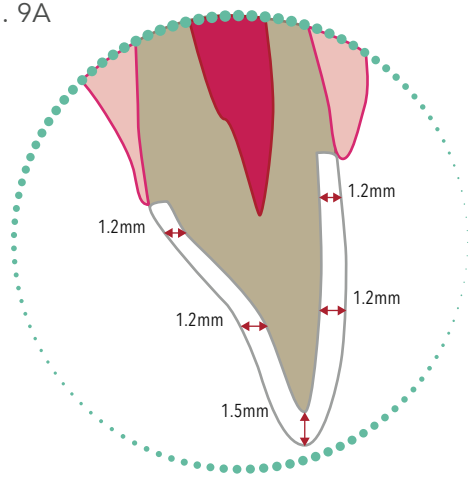
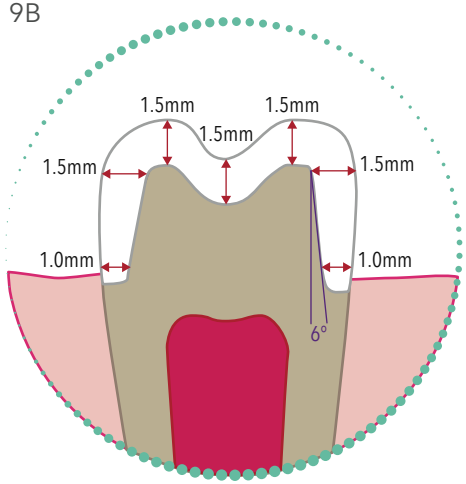


fig. 9B



10. POSTERIOR PARTIAL CROWNS

REAR 3/4 CROWN (fig.10A)

The 3/4 posterior crown allows the partial and minimally invasive reconstruction of a posterior element.

Remember to round off all edges and edges of the preparation; the values shown are to be intended as minimum values to obtain a suitable result, different conditions of the abutment and periodontium can lead to deeper preparations.

The closing margin for these elements is supra-gingiva.

Reduce the anatomical shape by respecting the minimum thicknesses indicated.

Circular preparation with rounded outer edges of about 10 ° -30 °.

Minimum reduction of incisal area 1.00mm.

For cementation proceed with self-adhesive cements, possibly self- and photo-curing; the preparation must have retentive surfaces and sufficient abutment height.

PARTIAL CROWN (fig.10B)

The partial crown involves the partial and minimally invasive reconstruction of a posterior element.

Remember to round off all edges and edges of the preparation; the values shown are to be intended as minimum values to obtain a suitable result, different conditions of the abutment and periodontium can lead to deeper preparations.

Carefully consider static and dynamic contacts with antagonists, evaluate lateral and protrusive movements.

Do not make the edges in the centric points of contact with the antagonists.

In the capping area of the cusps consider a minimum thickness of 1.50mm.

For cementation proceed with self-adhesive cements, possibly self and photo-curing; the preparation must have retentive surfaces and sufficient abutment height.

fig. 10A

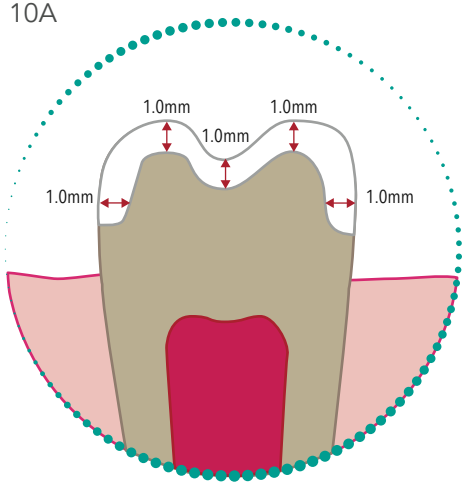
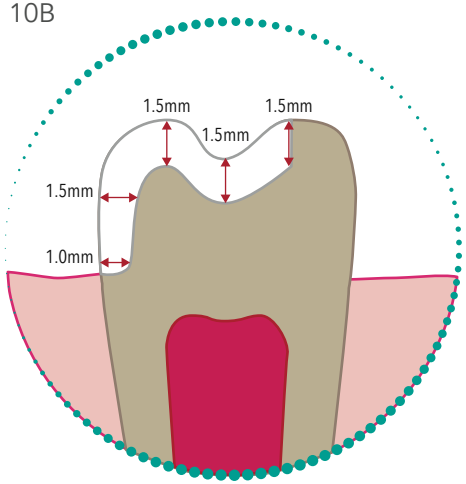


fig. 10B



11. THREE ELEMENTS FRONTAL BRIDGES

3 ELEMENTS FRONTAL BRIDGES (fig.11A)

With the Natural DSL pressing pads, it is also possible to create bridges of up to 3 units with an intermediate element with natural abutments, up to the second premolar.

Remember to round off all edges and edges of the preparation; the values shown are to be intended as minimum values to obtain an adequate result.

It should be noted that different conditions of the abutment and periodontium can lead to deeper preparations.

The closing margin for the abutment elements is subgingival.

Reduce the anatomical shape by respecting the minimum thicknesses indicated.

Circular preparation with rounded outer edges of about 10° - 30°.

Reduction of the inciasal area at least 1.5 mm, reduction of the proximal walls to the bridge element at least 1.00 mm.

When modeling the bridge, maintain adequate connections to the restoration, avoiding creating too thin thicknesses; the cross section of the connector must be no less than 16 mm2.

The total length of the bridge element, including connections, does not exceed:

- 9 mm for bridges with pre-molar abutments.
- 11 mm for bridges with incisors only abutments.

The connections must be made in such a way as to best support the forces released during chewing (fig. 11B).

During the FINISHING phase of the restoration, be very careful not to reduce the size of the connectors.

For cementation proceed with self-adhesive cements, possibly self- and photo-curing; the preparation must have retentive surfaces and a sufficient height of the abutments.

ATTENTION: Do not make bridges with cantilevered elements. The bridge element must not compress the underlying gingival area.

fig. 11A

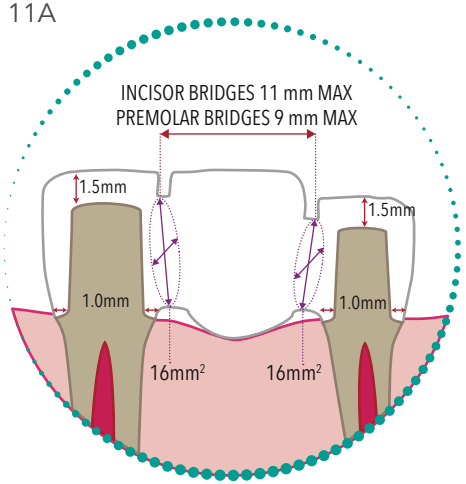


fig. 11B

12. RECOMMENDED MINIMUM THICKNESS

TYPE of RESTORATION	RESTORATION AREAS	VENEERS	INLAYS	ONLAYS	CROWNS		3 ELEMENTS BRIDGES	
					FRONT	REAR	INCISIVES	PREMOLAR
SURFACE COLORING with Natural Stains	INTERPROXIMAL, VESTIBULAR and LINGUAL	0,3 - 0,6	1,0	1,5	1,2	1,5	1,2	1,5
	INCISAL AND OCCLUSAL	0,4 - 0,7	1,0	1,5	1,5	1,5	1,5	1,5
MICRO-LAYERING with Natural CRYSTAL	INTERPROXIMAL, VESTIBULAR and LINGUAL	0,6	-	1,5	1,2	1,5	1,2	1,5
	INCISAL AND OCCLUSAL	0,4	-	0,8	0,4	0,8	0,8	0,8
LAYERING with Natural ZiR	INTERPROXIMAL, VESTIBULAR and LINGUAL	-	-	-	0,6	0,6	0,8	0,8
	INCISAL AND OCCLUSAL	-	-	-	0,6	0,8	0,8	0,8
	BASIC PRINCIPLE				ANATOMICAL REDUCTION OF ELEMENTS			
	CROSS SECTION of the CONNECTOR	-	-	-	-	-	16 mm^2	16 mm^2
	MAXIMUM WIDTH of the BRIDGE ELEMENT	-	-	-	-	-	11	9

ALL MEASUREMENTS ARE EXPRESSED IN MILLIMETERS

13. OPERATIONAL PHASE:

13.1 PIVOTING TECHNIQUE

13.2 INVESTING

13.3 PRE-HEAT

13.4 PRESSING

13.5 FINALIZING

13.1 PIVOTING TECHNIQUE

The pivoting of the wax model must always take place in the same direction of flow and in the thickest point of the model, in order to obtain an unimpeded sliding of the viscous ceramic.

According to the number of elements to be pressed, it is possible to choose between the 100 or 200 gram cylinder; to obtain the best results it is always advisable to use a 200 gram cylinder.

ATTENTION:
the 100 gram cylinder can only be used for pressing a single element and only one; to press several elements, even if small, the use of the 200 gram cylinder is always recommended.

BEFORE pivoting, with a few drops of wax, close the hole at the base of the cylinder, then weigh the base of the cylinder and note its weight.

Different veneering ratios can be used to perform different restorations (see Technical Data Sheet of the veneer used); therefore check each restoration carefully before pivoting.

Observe the minimum distance of 10 mm between the wax elements and the silicone cylinder.

Respect the maximum height of 16 mm, the wax element with the casting pin.

If a single element is invested, it is necessary to add a second pressing channel as a stabilizer, as long as the element to be pressed with the casting pin (fig. 13.1A).

ATTENTION:
this step is RECOMMENDED for pressing with generic ovens (compressed air pressing), while it is MANDATORY for ovens with automatic pressing control (mechanical pressing).

If using the 100 gram cylinder, pin the wax model to the base of the cylinder in the steepest direction (this pinning technique is NOT RECOMMENDED for pressing multiple elements, even if small).

If two or more elements are invested, it is necessary to use the 200gr cylinder and respect a distance between the elements of at least 3 millimeters (fig. 13.1B).

ATTENTION:
Tressis Italia does not recommend the use of the 100gr cylinder. as the cooling can result not homogeneous; its use should only be relegated to small single elements.

fig. 13.1A

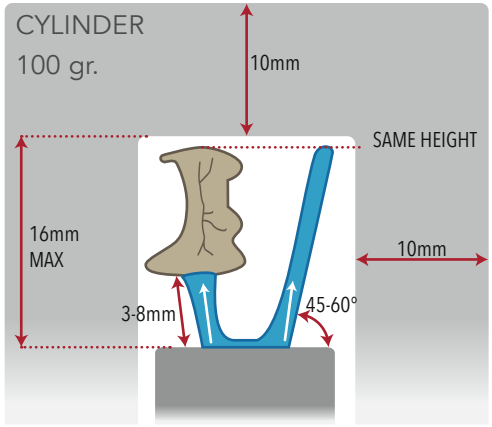
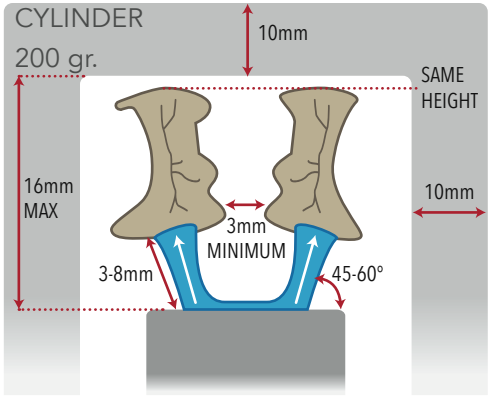


fig. 13.1B



Even if the various types of restorations to be pressed require different pivots, the recommendations for all-ceramic are always valid:

The wax model must have adequate minimum thicknesses and never less than 0.2 mm;

Avoid edges and knife-edge closures, it is recommended to round the closing edges;

Do not pivot the restoration on the inside;

The hinging must be positioned in the thickest part of the element;

For veneers, the sprue channel must be positioned on the incisal edge (fig. 13.1C);

The posterior crowns must be oriented to facilitate the flow of the ceramic as much as possible, positioning the sprue channel on the thickest cusp (fig. 13.1D);

The removal of the sprue must be carried out with a double-blade diamond disc, very sharp and by cooling the cutting point with water;

For 3-unit bridges (fig. 13.1E) only the 200g cylinder must be used;

It is advisable to always press 2 elements, even identical ones, to have a copy in case of need (fig. 13.1F).

fig. 13.1C

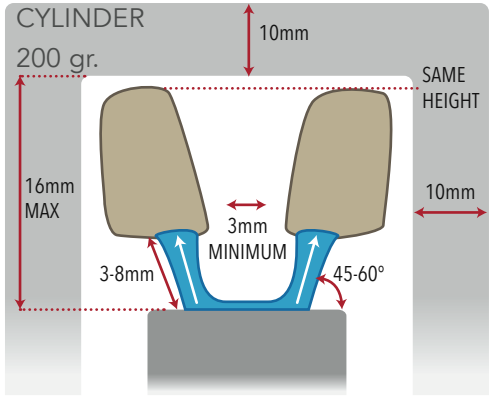


fig. 13.1E

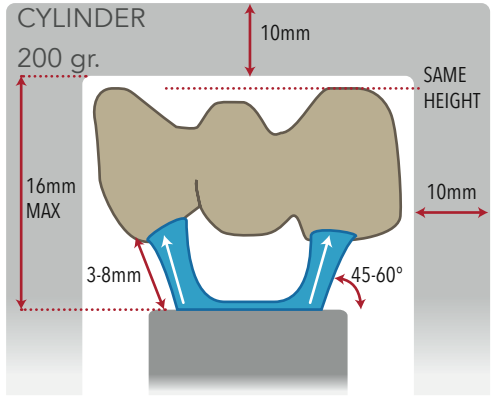


fig. 13.1C

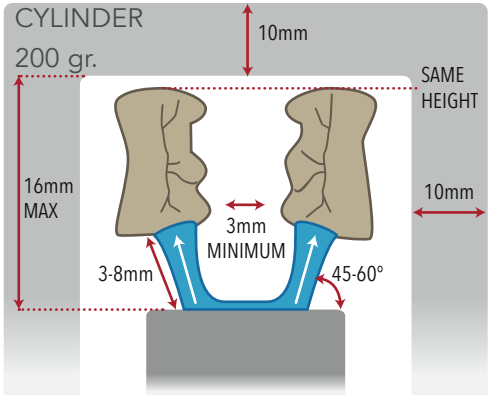
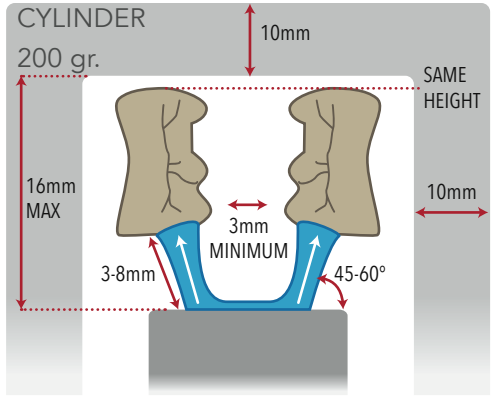


fig. 13.1F



	SINGLE UNIT RESTORATIONS	3 ELEMENTS BRIDGES
BASE for CYLINDER	100 - 200 grams	ONLY 200 grams
WAX TYPE	ASH FREE	ASH FREE
FUSION SPRUE Ø	3 mm	3 mm
LENGTH of the CASTING SPRUE minimum - maximum	3 - 8 mm	3 - 8 mm
MAXIMUM TOTAL LENGTH casting sprue + modeled wax	15 - 16 mm	15 - 16 mm
PIVOTING POINT	THICKER area	BOTH BRIDGE PILLARS, NOT on the bridge element
ANGULATION of the WAX MODEL	axial	axial
ANGULATION on the base of the CYLINDER	from 45° to 60°	from 45° to 60°
MODELING the PIVOTING POINTS	rounded and flared, without sharp edges	rounded and flared, without sharp edges
MINIMUM DISTANCE between ELEMENTS	3 mm	3 mm
MINIMUM DISTANCE from the SILICONE CYLINDER	10 mm	10 mm
IMPORTANT NOTES:	if only one element is pressed, add a stabilization channel	check that the oven pressure is sufficient for pressing

13.2 INVESTING

For investing, the T-Vest 2000 investment is recommended; alternatively, a specific lithium silicate coating can be used (follow the instructions of the coating manufacturer).

Use the silicone cylinder of the desired size and accessories (teat and leveling cap) of the same diameter.

ATTENTION:
Natural DSL lithium silicate pads have a larger diameter than traditional Natural HT, LF and ZiR pads. Make sure that the base on which the wax models are pinned has an adequate diameter.

BEFORE investing, weigh the wax model (complete with casting pins and, if present, the compensation pin).

Wax the wax objects at the base of the cylinder and weigh, note the weight;

Calculate the difference in weight between the base of the cylinder weighed previously and the one obtained with the wax model.

Choose the number of tablets to be pressed based on the weight measured (table 13.2)

For detailed working parameters, refer to the instructions for use of the manufacturer of the investment mass.

We recommend processing with T-Vest 2000 investment material.

Do not spray on the wax model with a tension reducer.

Processing temperature of the investment material 18 ° C - 23 ° C MAX.

ATTENTION:
a different working temperature has a decisive influence on the behavior and setting time.

Mix the investment mass according to the instructions for use.

ATTENTION:
the investment mass contains quartz powder - avoid inhaling the dust, use the usual means of prevention such as gloves, goggles and mask.

Invest the cavities using suitable tools (e.g. a brush).

Take care that the edges and thinner areas of the wax are not damaged.

Carefully apply the silicone ring on the base of the cylinder, taking care not to damage the wax objects. The silicone ring must be positioned correctly on the base of the cylinder.

Slowly fill the cylinder with the investment compound to level, then insert the leveling plug.

Let it harden without vibrations.

Following the flowering of the investment, the T-Vest 2000 investment material must be processed within 24 hours of the setting time at the latest.

Table 13.2

	1 PRESS PELLET	**2** PRESS PELLETS
WAX WEIGHT	up to 0,75gr MAX	up to 1,90gr MAX
SIZE CYLINDER	100gr or 200gr	ONLY 200gr

13.3 PRE-HEAT

Once the set time required by the investment is completed, the cylinder is prepared for the preheating cycle.

Remove the cylinder base with a twisting motion.

Carefully remove the cylinder from the silicone ring.

Remove any irregularities on the support surface of the cylinder, with a plaster knife, being careful not to let any debris fall into the cylinder itself; then check the 90 ° angle.

Gently pass a piece of sandpaper over the cylinder head by hand.

ATTENTION:
do NOT use a model trimmer, either dry or wet.

ATTENTION:
investment residues and powders must not reach the pressing channel; if necessary remove with a light jet of air.

Place the cylinder inside the pre-heating oven, at the temperature indicated in the table for the coating, depending on the investment method used, with the hole facing down.

ATTENTION:
if other types of investment are used, refer to the instructions for use of the coating itself, provided by the manufacturer of the coating.

If the support surface of the pre-heating oven is parallel to the ground, it is possible to place a small piece of investment under the cylinder to tilt the cylinder slightly (fig. 13.3A).

ATTENTION:
The cylinder must NEVER be positioned in the pre-heating oven with the hole facing upwards (fig 13.3B).

If you plan to perform several presses in a row, place the cylinders in the oven at intervals of 20/30 minutes, taking care that the temperature does not drop too much.

ATTENTION:
use a investment suitable for the ceramic die-casting technique and compatible with lithium silicate, check the instructions for use of the coating provided by the coating manufacturer.

fig. 13.3A

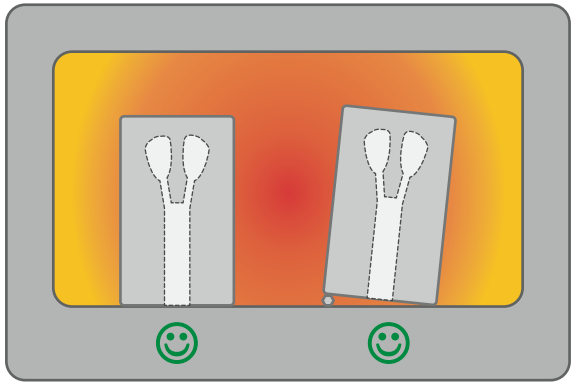
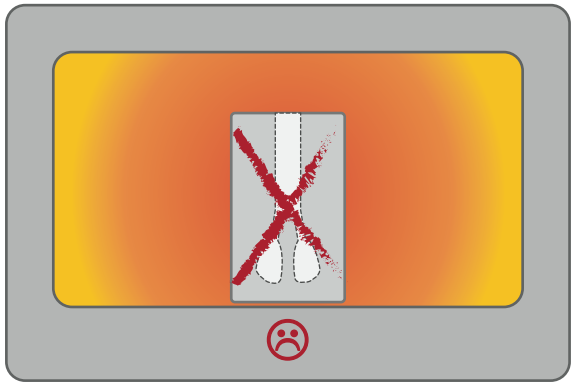


fig. 13.3B



For the T-VEST 2000 investment, refer to table 13.3.

The Natural DSL ceramic pads as well as the pistons for pressing, both those in alumina and those in refractory material such as TVP, must NOT be placed in the oven for pre-heating.

Tressis Italia does not recommend the use of alumina pistons, while it recommends the use of disposable refractory pistons as they reduce the possibility of thermal shock.

ATTENTION:
Natural DSL lithium silicate pads have a larger diameter than traditional pads, make sure that the piston is adequate for the size of the pad.

ATTENTION:
the Natural DSL ceramic tablets must not be placed in the pre-heating oven, but kept at room temperature until they are inserted into the hot cylinder (see paragraph 13.4).

Tabella 13.3

	TRADITIONAL TECHNIQUE	FAST TECHNIQUE
Setting time T-VEST	MINIMUM 40 minutes	MINIMUM 22 minutes
Insertion in the preheating oven temperature	Room temperature	800 °C
Positioning of the cylinder in the oven	at the rear, with the opening downwards	at the rear, with the opening downwards
Final pre-heating temperature	850 °C	850 °C
Holding time at final temperature	MINIMUM 60 minutes	100 gr minimum 40 mins. 200 gr minimum 60 mins.
Natural DSL ingots	DO NOT PRE-HEAT	DO NOT PRE-HEAT
Disposable press plunger TVPØ3	DO NOT PRE-HEAT	DO NOT PRE-HEAT
WARNING	If you perform several presses in a row, wait at least 20/30 minutes between inserting one cylinder and the other, making sure that the temperature never drops too much	

13.4 PRESSING

Before the cylinder pre-heating cycle is completed, we recommend carrying out the following preparatory steps for pressing, in order to have everything ready before extracting the cylinder from the pre-heating furnace.

Select the Natural DSL cold pressing PELLET of the desired color and the cold piston (refractory and / or alumina).

Turn on the pressing oven in good time so that all the preliminary stages of starting the oven and preheating the cooking chamber are completed.

Call up the desired pressing program.

After the cylinder preheating cycle, remove the cylinder from the preheating furnace.

WARNING:
the cylinder is at a very high temperature risk of burns.

WARNING:
the following steps must last as short as possible to prevent the cylinder from cooling too much.

Insert the PELLET Natural DSL (cold) into the cylinder (hot) with the printed part facing up.

It is recommended to keep the printed part upwards in order to check the actual color of the ingot (fig. 13.4A).

Insert the pressing piston (cold) into the cylinder (hot).

ATTENTION:
the disposable TVP Plungers have a direction of insertion: keep the side marked with a dot upwards (fig 13.4B).

Position the cylinder thus composed in the center of the pressing furnace plate (hot) with the cylinder clamp.

Start the previously selected pressing program.

At the end of the pressing process, when the oven is opened, take the cylinder with the special pliers.

Place the hot cylinder on the cooling grid, or in another place protected from drafts.

It is recommended not to accelerate the cooling, for example, with compressed air or air conditioning jets.

fig. 13.4A

IMPORTANT:
the printed side must be kept upwards

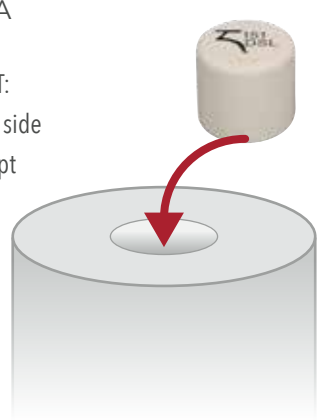
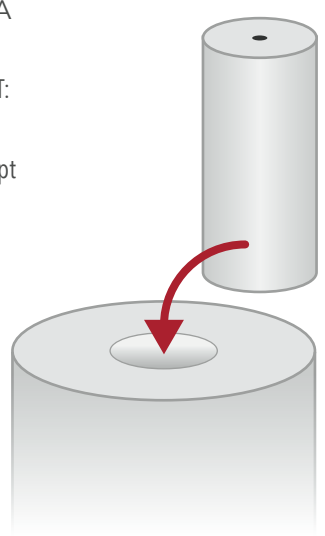


fig. 13.4A

IMPORTANT:
the dot must be kept upwards



13.5 FINALIZING

The finishing process of the restoration, after the removal of the sprues, can be carried out with two different techniques: by surface coloring or by layering.

ATTENTION:
to remove the casting pins use a double-bladed diamond disc, sharp and keeping the element wet so as not to overheat it.

SURFACE COLORING:
according to the desired final result, Natural Stains colors can be used and / or a micro-layering can be created with Natural CRYSTAL paste ceramic.

For the heat treatment with stains and for the heat treatment with CRYSTAL, refer to the firing tables of the CRYSTAL ceramic in chapter 15, or to the instructions for use of CRYSTAL.

CERAMIC LAYERING:
alternatively, to achieve a more personalized result, it is possible to stratify the Natural ZiR ceramic on the pressed Natural DSL structure.

ATTENTION:
as the first firing, use only the special Natural ZiR LINER SPECIAL DS lithium silicate mass, a thin layer spread evenly over the entire surface of the restoration (fig. 13.5A).

We recommend that you always model the element in its final shape and subsequently reduce it with a Red Shark bur, only in the areas to be layered with the ceramic powder (fig.13.5B)

Layer the Natural ZiR ceramic powders on the Natural DSL structure using all the masses necessary to achieve the desired shape and color (fig. 13.5C).

ATTENTION:
it is very important to keep the ratio of 2/3 DSL pressed and 1/3 ZiR stratified.

ATTENTION:
it is recommended to compensate for any lack of vertical dimension during the modeling phase with wax to avoid having to add too large amounts of layering ceramic.

After ceramic layering and / or surface staining of the restoration, it is recommended to finalize the denture with a Natural Glaze FX firing, chosen by the technician.

fig. 13.5A

1st Special DS Liner
firing thin
throughout the restoration

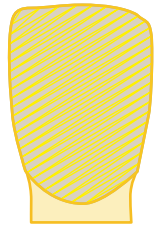


fig. 13.5B

Reduce the incisal
area to create
the layering space

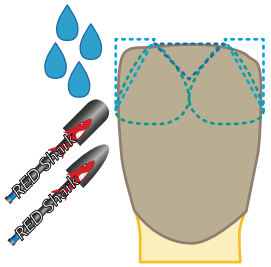
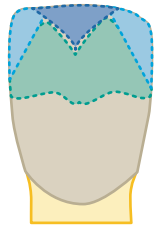


fig. 13.5C

Layer no more than 1/3
of the total volume
of the element



14. NATURAL DSL INGOTS LIST

Below are all the Natural DSL pressing tablets with the reference colors for easy and clear identification of the same, the reference color chart for each ceramic mass in the available packaging.

For details of the colors, the layering technique and the suggested and recommended uses of each mass, refer to the Natural DSL table in paragraph 19. or to the Ceramica Natural DSL Catalog.

DSL PRESS PELLETS
range 150+
5 press pellets 3 gr. each

DSL PRESS PELLETS
range 160+
5 press pellets 3 gr. each

DSL PRESS PELLETS
range 170+
5 press pellets 3 gr. each

BEFORE AND AFTER: HIGHLY AESTHETIC RESTORATION TOTALLY METAL FREE

The combination of two highly performing and innovative materials makes it possible to achieve unparalleled aesthetic levels: restoration made with Natural DSL lithium silicate-based die-casting ceramic and finalized with the micro-layering technique with Natural CRYSTAL gel masses.

Made by: **ANDREA CIALENTE**
Laboratorio Odontotecnico
ROMA - ITALIA

15. NATURAL CRYSTAL MASSES LIST

All Natural CRYSTAL universal masses for micro-layering are shown below, with the reference colors for easy and clear identification.

For the details of the colors, refer to the Natural CRYSTAL table in paragraph 19; for the suggested and recommended uses of each mass, refer to the Ceramica Natural CRYSTAL Catalog.

Crystal LIVE! 1
PASTE 4 gr.

Crystal LIVE! OPAL
PASTE 4 gr.

Crystal LIVE! 2
PASTE 4 gr.

Crystal LIVE! CLEAR
PASTE 4 gr.

Crystal LIVE! 3
PASTE 4 gr.

Crystal LIVE! BLUE
PASTE 4 gr.

Crystal LIVE! INCISAL
PASTE 4 gr.

Crystal LIVE! ORANGE
PASTE 4 gr.

Crystal GUM CHERRY PINK
PASTE 4 gr.

Crystal GUM NEUTRAL
PASTE 4 gr.

Crystal GUM ORCHID PINK
PASTE 4 gr.

Crystal GUM ALFA RED
PASTE 4 gr.

Crystal GUM PEARL PINK
PASTE 4 gr.

Crystal GUM BURGUNDY RED
PASTE 4 gr.

Crystal GUM SALMON PINK
PASTE 4 gr.

Crystal GUM RUBY RED
PASTE 4 gr.

Crystal GUM VELVET PINK
PASTE 4 gr.

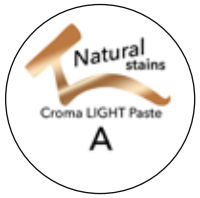
Crystal GUM WINE RED
PASTE 4 gr.

16. NATURAL STAINS UNIVERSAL COLORS LIST

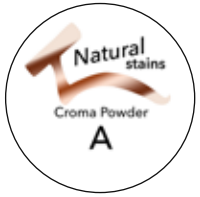
All the universal stains Natural Stains and Natural GLAZE FX are shown below, with the reference colors for easy and clear identification.

For details on the colors, refer to the Natural STAINS stains table in paragraph 19; for the suggested and recommended uses of each color, refer to the Natural STAINS & GLAZE Ceramic Catalog.

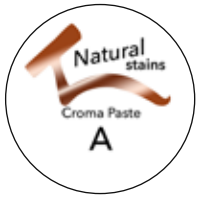
Stains CROMA LIGHT PASTE 4 gr.



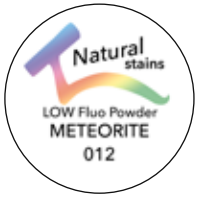
Stains CROMA POWDER 4 gr.



Stains CROMA PASTE 4 gr.

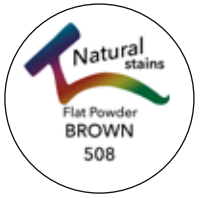


Stains LOW FLUORESCENCE POWDER 4 gr.



Stains HIGH FLUORESCENCE POWDER 4 gr.

Stains FLAT POWDER4 gr.



Stains HIGH FLUORESCENCE PASTE 4 gr.

GLAZE FX TRADITIONAL
POWDER 10 gr.

GLAZE FX TRADITIONAL
PASTE 10 gr.

GLAZE FX FLUORESCENT
PASTE 10 gr.

GLAZE FX CRYSTAL
ULTRA FLUORESCENT
PASTE 10 gr.

GLAZE AIR FX SPRAY
ULTRA FLUORESCENT
SOLUTION 75 ml.

17. NATURAL LIQUID UNIVERSAL LIQUIDS LIST

Below are all the universal liquids of the Natural LIQUID family compatible with the various Natural Ceramic System masses, with the reference colors for easy and clear identification of the same.

For information on the suggested and recommended uses of each liquid, refer to the ceramic manual or refer to the specific Natural LIQUIDS Catalog.

Liquid INSULATING
Liquid 20/50 ml.

Liquid PASTE OPAQUE
Liquid 20/50 ml.

Liquid POWDER OPAQUE
Liquid 20/50 ml.

Liquid MASSA SPALLA
Liquido 20/50 ml.

Liquid MODELLING
Liquid 100/250/1000 ml.

Liquid SPECIAL
MODELLING
Liquid 100/250/1000 ml.

Liquid MORFOLOGIC
SID & CUSPID
Liquid 100/250 ml.

Liquid PRISMATIC DENTIN
Liquid 100/250 ml.

Liquid STAINS & GLAZE
Liquido 20/50/100 ml.

18. WARNINGS

1. GENERAL:
All Natural Ceramic System products have been designed and manufactured as part of a single ceramic system and therefore, in the layering of the restorations, only original Natural Ceramic System materials must be used, carefully following the instructions for use. and the recommendations provided by the manufacturer. Information on Natural Ceramic System products is transmitted to users through paper documentation (instructions for use, manuals, technical sheets, catalogs, etc.), audiovisuals, IT tools, training courses, practical demonstrations and telephone or verbal support from recognized Tressis specialists. Italy. The information provided is always at the highest level of technical and scientific updating available at the time the product is marketed.

2. RESPONSIBILITY OF THE USER:
The availability of the support information provided by Tressis Italia does not exempt the user from the obligation to personally verify the compliance of the products with the needs, indications and methods of use envisaged. All the processes, manipulations and applications of Natural Ceramic System products that take place outside the control of Tressis Italia itself, are under the control and complete responsibility of the user, who therefore also assumes responsibility for any consequential damage, in cases in which Tressis Italia products, components and tools are not used for procedures not expressly provided for or recommended.

3. MANUFACTURER'S RESPONSIBILITY:
The Natural Ceramic System is a medical device according to the 93/42 EEC directive, aimed at the production of all-ceramic and / or layered prostheses on alloy and zirconia structures, for application in oral cavity of humans. Any use of the system other than that stated is configured as "improper use" relieving the manufacturer of any obligation and liability. Given that the choice and application of the product are acts carried out by qualified dental technicians on the recommendation of a dentist in total autonomy of judgment, no responsibility can be attributed to Tressis Italia for damages of any nature deriving from such acts.

4. DELIVERY:
All Natural Ceramic System products are intended exclusively for dentists and dental technicians, according to their respective skills, both in the case of direct sales and in the case of use of other commercial distribution channels.

5. WARRANTY:
Tressis Italia subjects all the products in the system to rigorous quality controls, in accordance with the regulations in force, aimed at providing a product free from obvious flaws and defects. As indicated in the conditions of sale, the verification of any defects and the methods of any replacement of the product must be agreed with Tressis Italia. No responsibility can be attributed to Tressis Italia for hidden defects or defects not ascertained by the user at the time of application of the product.

6. AVAILABILITY:
All Tressis Italia products may not be available in some countries or commercial areas.

7. PRODUCT IDENTIFICATION - MARKING:
All Natural Ceramic System products are identifiable based on the item code and lot code, shown on the packaging.

8. PRODUCT DOCUMENTATION:
All the documentation for Natural Ceramic System products can be requested from Tressis Italia directly or through its marketing channels and is available on the website www.naturalceramic.it

9. SEMINARS AND TRAINING COURSES:
Tressis Italia regularly organizes training courses for its customers in order to allow users of its products to inform themselves and update themselves on the characteristics and use of Natural Ceramic System products.

10. KEY TO THE SYMBOLS SHOWN ON THE PACKAGE:

 Producer

 Production date YYYY MM

 Medical Device

 Production Lot

 Product code

 Unique identification of the device

 ATTENTION: consult the instructions for use

ATTENTION: Not necessarily all the symbols mentioned are present at the same time on the product packaging.

19. TRESSIS ITALIA BRANDS

TRESSIS ITALIA TRADEMARKS

Tressis Italia, a leading company in the dental sector, specializes in the production of dental ceramics and in the development of innovative products.

The strength of Tressis Italia is based above all on the quality of the product which derives from a deep knowledge of the materials.

Innovation has become a tradition in the philosophy of our work: technical and scientific progress, new materials, new technologies are challenges that see us at the forefront.

Our dynamism leads us to promptly identify the needs of the changing market, managing to offer operators in the sector products that anticipate change.

Tressis Italia has developed the Natural Ceramic System, one of the most complete and innovative in the sector, bringing new generation highly performing materials to the dental ceramics branch.

Our flagships: • the complete range with over 200 masses for traditional layering and an exceptional series of special masses; • THE ONE monomass for metal and zirconia, launched on the market well over 10 years ago as an absolute novelty ; • The materials for micro layering on monolithic zirconia and lithium disilicate MiLa, Frame, Overlay, MAC and the CRYSTAL method with the innovative Micro Layering System technique.

In addition to the porcelain masses, Tressis Italia has developed Natural Stains, universal colors that can be used with all the highly fluorescent Natural ceramic lines. The working temperature range is very wide, and the Stains retain their color after numerous firings.

The Tressis Italia Natural Ceramic System is complemented by the Glaze FX range of glazes. Universal glazes, usable with all Natural ceramic lines, which meet all needs: normal powder, normal paste, highly fluorescent paste, highly sprayable fluorescent.

The original products developed by Tressis Italia in over 20 years of activity have seen countless attempts at imitation, which have remained far from our level of excellence, 100% made in Italy.

Tressis Italia is now synonymous with innovation, research, functionality, simplicity, style and beauty.

Tressis Italia has brought to the dental sector a ceramic range of extraordinary technical, aesthetic and functional value, at the same time simple and fast as time requires.

Tressis Italia owns the following brands:

AURICOM INDUSTRIES

BIO ALLOYS

creolab SMART PRODUCTS FOR DENTAL LAB

F1 FURNACES

iCeramist line

Natural CERAMIC SYSTEM

RED Shark HEAVY DUTY GRINDING TOOLS

20 . NATURAL DSL CHARTS

NATURAL DSL SYSTEM COMPOSITION TABLES:

- NATURAL DSL PRESS PELLETS COLORS
- NATURAL DSL PRESS PELLETS COMBO
- NATURAL DSL FIRING CHART (RANDOM FURNACES)
- NATURAL DSL FIRING CHART (F1 FURNACES)

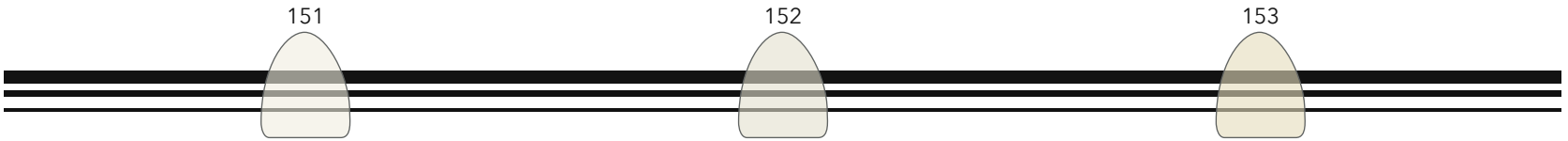
NATURAL CRYSTAL COLOR CHART

NATURAL CRYSTAL FIRING CHART (RANDOM FURNACES)

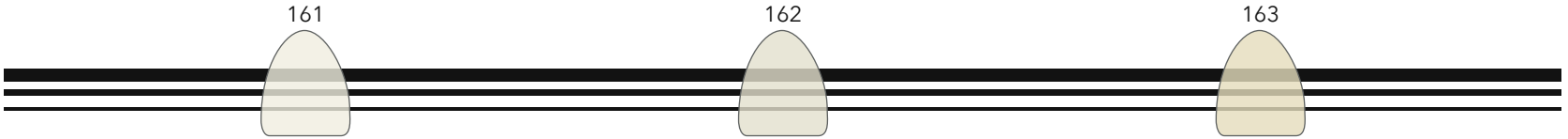
NATURAL STAINS POWDER AND PASTE CHART

NATURAL STAINS PASTE CHART

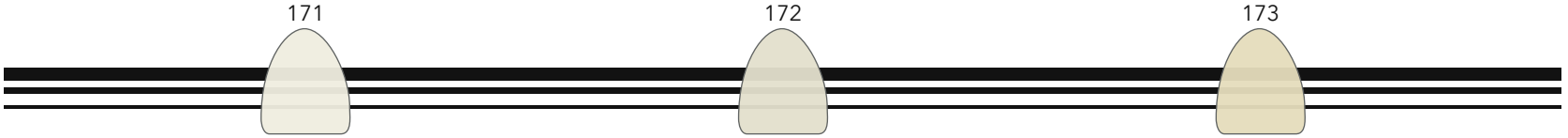
DSL PRESS PELLETS
RANGE 150+ (Opacity approx. 40%)



DSL PRESS PELLETS
RANGE 160+ (Opacity approx. 60%)



DSL PRESS PELLETS
RANGE 170+ (Opacity approx. 85%)



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ITALIAN STYLE

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PRESS PELLETS COMBO CHART

Natural® DSL
CE 0546

	A0	A1	A2	A3	A3,5	A4	B0	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
151	V	V	V				V	V				V				V		
152				V					V	V			V				V	
153					V	V					V			V	V			V

Natural DSL Press Pellets range 150+

Low opacity (40% approx) ideal for making aesthetic veneers, full crowns on natural abutments. *

Suitable for both the layering technique with Natural ZiR ceramic and for the surface staining technique with Stains and Natural Stains glaze. **

	A0	A1	A2	A3	A3,5	A4	B0	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
161	V	V	V				V	V				V				V		
162				V					V	V			V				V	
163					V	V					V			V	V			V

Natural DSL Press Pellets range 160+

Intermediate opacity (60% approx) ideal for making aesthetic veneers, full crowns on natural abutments, even slightly discolored, and implants. *

The layering technique with Natural ZiR ceramic is recommended to finalize the highly aesthetic result. **

	A0	A1	A2	A3	A3,5	A4	B0	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
171	V	V	V				V	V				V				V		
172				V					V	V			V				V	
173					V	V					V			V	V			V

Natural DSL Press Pellets range 170+

High opacity (85% approx) ideal for making aesthetic veneers, full crowns on discolored natural abutments and implants. *

The layering technique with Natural ZiR ceramic is recommended to finalize the highly aesthetic result. **

GENERAL RECOMMENDATIONS:

* different conditions of the natural abutments and / or underlying implants in correlation to the available thickness can lead to very different results: the choice of the tablet to be pressed must always take into account the available spaces, the abutments and the position in the oral cavity.

** the choice of stratifying or painting the pressed elements is to be made according to the aesthetic needs of the individual case. As a general rule, the more opaque pads have a greater need to perform layering and layering in the enamel area than the more translucent ones; value, hue, thickness and underlying structure are determining factors in this choice.

It is ALWAYS recommended to press the complete anatomical elements and then perform a cut-back with a RED SHARK sintered diamond bur to create spaces for layering the ceramic.

It is recommended to carefully read the instructions for use for proper management of all processing phases such as, for example, modeling, pinning, preheating etc.

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Natural® DSL

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PRESS PELLETS FIRING CHART

FURNACE	WEIGHT OF THE CYLINDER	START TEMP.	RATE BAR	HEAT RATE	FINAL TEMP.**	HOLD TIME	INJECTION TIME	VACUUM START	NOTE ***
	grammi	°C		°C / min.	°C	min.	min:sec	°C	
F1 Master Press	100	700	20	60	920	15	7:00	700	VACUUM LEVEL set to MAX
F1 Master Press	200	700	20	60	920	25	3:00	700	VACUUM LEVEL set to MAX
DEKEMA* Press-i-Dent*	100	700	--	60	910	18	AUTO1	700	PRESS LEVEL 5
DEKEMA* Press-i-Dent*	200	700	--	60	915	20	AUTO1	700	PRESS LEVEL 5
DENTSPLY* Multimat NTXpress*	100	700	--	60	930	15	3:00	700	----
DENTSPLY* Multimat NTXpress*	200	700	--	60	950	18	3:00	700	---
IVOCLAR* Programat*	100	700	--	60	900	18	3:00	700	Set "E VALUE" to E600
IVOCLAR* Programat*	200	700	--	60	915	20	3:00	700	Set "E VALUE" to E600
UGIN*	100	700	--	60	900	15	3:00	700	---
UGIN*	200	700	--	60	930	18	3:00	700	---
Whip Mix* Pro Press 100*	100	700	--	60	930	20	7:00	700	Set PRESSION VALUE to 4,5 BAR
Whip Mix* Pro Press 100*	200	700	--	60	930	20	7:30	700	Set PRESSION VALUE to 4,5 BAR
ZUBLER* adv. Press	100	700	--	60	910	18	3:00	700	Set PRESSION LOW
ZUBLER* adv. Press	200	700	--	60	915	20	3:00	700	Set PRESSION LOW

* All the commercial names shown are not the property of Tressi Italia, but are the property of their legitimate owners

ATTENTION: the Natural DSL ingots have a weight of 3 grams each, different from the traditional 2 gram ingots, therefore they require a special teat and pistons.

DO NOT USE the teat or the pistons of the 2 gram pads, you risk breaking the cylinder and serious damage to the oven.

ATTENTION: the temperatures shown were determined using a F1 Master Press oven and are intended as indicative.

It is recommended to carry out a test press to calibrate the temperatures before carrying out the first works.

To determine the correct "Final Temperature" for your oven, it is advisable to make variations of +/- 5°C at a time, longer intervals reduce the possibility of a correct calibration.

The "Final Temperature" may vary from oven to oven (even of the same brand) based on the model, update and age of the oven itself.

For other brands / types of oven not mentioned, temperatures may need to be changed.

IT IS STRONGLY RECOMMENDED to always use the 200 gram cylinder and the use of disposable refractory pistons T Vest Plungers x3.

The use of alumina pistons is not recommended.

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DENTAL CERAMIC
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PRESS PELLETS FIRING CHART FOR F1 FURNACES

FURNACE	IDLE TEMPERATURE	ENTRY TEMPERATURE	---	FIRE 3 RATE	FIRE 3 TEMPERATURE	FIRE 3 TIME	PRESS TIME	PRESS RATE	STOP SPEED	VACUUM RUN TEMPERATURE	VACUUM STOP TEMPERATURE	VACUUM STOP TIME	NOTE
	°C	°C	---	°C / min.	°C	min.	min.	--		°C	°C	min.	
F1 DIGITAL Press 1 x 100gr	680	700	...	60	920	15:00	7:00	20	300	700	940	-	Program for pressing one pellet in a 100 gr. cylinder
F1 DIGITAL Press 2 x 100gr	680	700	...	60	920	25:00	7:00	20	300	700	940	-	Program for pressing one pellet in a 200 gr. cylinder
FURNACE	IDLE TEMPERATURE	ENTRY TEMPERATURE	---	FIRE 2 RATE	FIRE 2 TEMPERATURE	FIRE 2 TIME	PRESS TIME	PRESS RATE	STOP SPEED	VACUUM RUN TEMPERATURE	VACUUM STOP TEMPERATURE	VACUUM STOP TIME	NOTE
	°C	°C	---	°C / min.	°C	min.	min.	--	--	°C	°C	min.	
F1 MASTER Press 1 x 100gr	680	700	...	60	920	15:00	7:00	20	300	700	940	-	Program for pressing one pellet in a 100 gr. cylinder
F1 MASTER Press 2 x 100gr	680	700	...	60	920	25:00	7:00	20	300	700	940	-	Program for pressing one pellet in a 200 gr. cylinder

ATTENTION: Natural DSL pads weigh 3 grams each and require special teat and pistons.

There may be slight differences in the final temperature based on the update, wear and general state of the oven; it is advisable to carry out a test press to calibrate the temperatures before carrying out the first works.

It is RECOMMENDED to always use the 200 gram cylinder and the disposable T-Vest Plungers x3, refractory pistons specific for lithium silicate.

The use of alumina pistons is not recommended.

Under certain conditions the F1 FURNACES ovens are able to press 2 tablets in a 200 g cylinder, for more information contact Tressis Italia.

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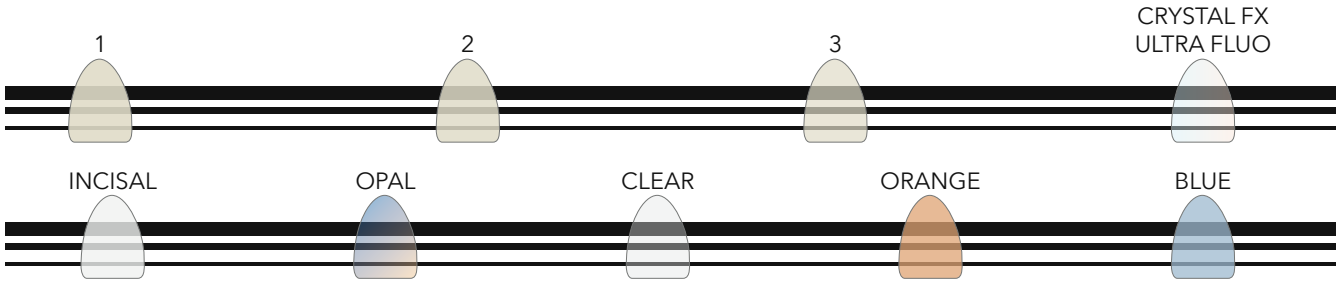
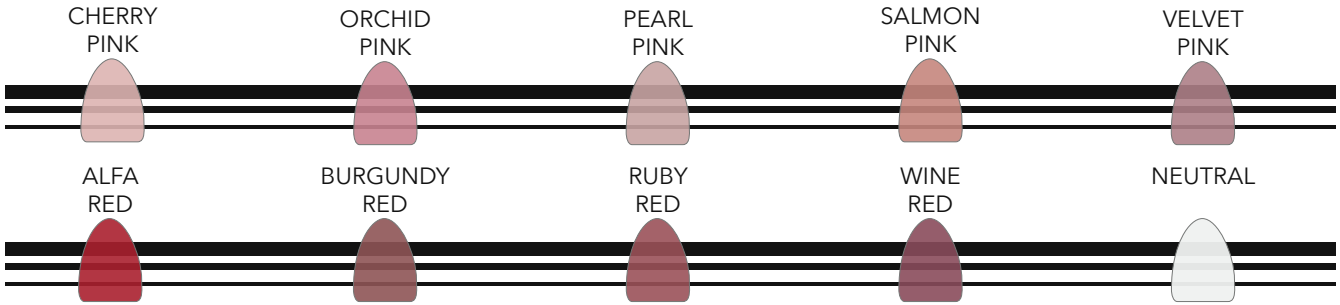
CRYSTAL LIVE! PASTE SHADES -EXTREME FLUORESCENCE-



CRYSTAL GUM PASTE SHADES -GINGIVAL MASSES-



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DENTAL CERAMIC
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REF 01 TABUN 011 -1

MICRO-LAYERING FIRING CHART

PROGRAM NAME	DRY TIME	CLOSING TIME	START TEMPERATURE	HEAT RATE	FINAL TEMPERATURE	HOLD TIME	VACUUM START	VACUUM STOP	OPENING TIME	NOTES
	MIN	MIN	°C	°C/MIN	°C	MIN	°C	°C	MIN	
CRYSTAL 1&2 -ZIR	03:00	03:00-06:00	400	45	770	02:00	670	770	05:00	Firing program for MONOLITHIC ZIRCONIA, the firing result should be bright, shiny without bleaching the zirconia structure
CRYSTAL 1&2 -DSL	03:00	03:00-06:00	400	45	770	01:00	670	770	05:00	Program for LITHIUM SILICATE, modify HOLDING TIME and FINAL TEMPERATURE according to the indications of the Lithium Silicate manufacturer. DO NOT OVERHEAT.
COLOR FIXING	03:00	03:00-06:00	400	45	700	01:00	670	700	05:00	Program to fix colors and prevent mixing; can be performed countless times until the desired result is achieved, finish with CRYSTAL FX glazing program
GLASURA CRYSTAL FX	03:00	03:00-06:00	400	45	750	01:00	-	-	05:00	Program to be used ONLY with CRYSTAL FX glaze to obtain the maximum result of brilliance and shine. To change the glossy effect, vary the temperature ± 5°C at a time

VERY IMPORTANT NOTE:

CRYSTAL CERAMIC is a special ceramic in paste for micro-layering, SET the VACUUM START and VACUUM STOP VALUES as shown in the table, firing the CRYSTAL ceramic without correctly setting the vacuum values can lead to discoloration and dull results / whitish or unsatisfactory.

NOTE: CRYSTAL 1 & 2 ZiR is a program that can be used with any monolithic zirconia and zirconia-ceramic restoration. The FINAL TEMPERATURE must be modified to obtain a smooth, shiny and silky surface without lightening the zirconia framework.

CRYSTAL 1 & 2 DSL is a program that can be used with integral lithium silicate and lithium silicate restorations layered with Natural ZiR ceramic. To obtain a brilliant and shiny result, modify the FINAL TEMPERATURE parameters, consulting the specifications of the lithium silicate manufacturer. DO NOT OVERHEAT!

ATTENTION: All the parameters shown refer to the firing of a single crown or a small bridge; for long, circular bridges, very large restorations and / or many elements in a single firing, it is recommended to increase DRY TIME and CLOSING TIME up to 6/8 minutes.

ATTENTION: All temperatures have been calibrated using an F1 Digital Fire oven. To obtain a satisfactory result, the age, state of service, wear and updating of your oven must be taken into account. IT IS RECOMMENDED TO CARRY OUT A TRIAL FIRING BEFORE STARTING TO WORK.

TIP: Before the first use of the product and / or if you change the type or brand of zirconia, it is recommended to carry out a trial firing of the framework to see if it bleaches.

* END VACUUM: for IVOCLAR ovens and similar, set the END VACUUM temperature 1 ° C lower than the FINAL TEMPERATURE in order to carry out the HOLDING TIME in the atmosphere.

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DENTAL CERAMIC
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Natural® stains

UNIVERSAL STAINS POWDER & PASTE

CE 0546

POWDER LOW FLUORESCENCE

METEORITE 012 | LIGHT BLUE 018

POWDER FLAT

BROWN 508 | WHITE 513

POWDER HIGH FLUORESCENCE

ORANGE 106 | CHOCOLATE 109 | WHITE 113 | PINK 114 | BLUE 119 | BLACK 120 | ORANGE 123 | GRAY 126

PASTE HIGH FLUORESCENCE

YELLOW 601 | SAFARI 607 | BROWN 608 | VIOLETT 611 | METEORITE 612 | WHITE 613 | PINK 614 | DEEP PURPLE 615 | RED PASSION 616

LONDON 617 | BLUE 619 | BLACK 620 | ATLANTIC BLUE 621 | SAND 622 | ORANGE 623 | GRAY 626 | LUNE 628

POWDER CROMA HIGH FLUORESCENCE

A | B | C | D

PASTE CROMA HIGH FLUORESCENCE

A | B | C | D

PASTE CROMA LIGHT HIGH FLUORESCENCE

A | B | C | D

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DENTAL CERAMIC
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COLOR PASTE HIGH FLUORESCENCE

YELLOW 601

SAFARI 607

BROWN 608

VIOLETT 611

METEORITE 612

WHITE 613

PINK 614

DEEP PURPLE 615

RED PASSION 616

LONDON 617

BLUE 619

BLACK 620

ATLANTIC BLUE 621

SAND 622

ORANGE 623

GRAY 626

LUNE 628

CROMA PASTE HIGH FLUORESCENCE

A

B

C

D

CROMA LIGHT PASTE HIGH FLUORESCENCE

A LIGHT

B LIGHT

C LIGHT

D LIGHT

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DIPARTIMENTO ENERGIE RINNOVABILI


DSL
HT
LF
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MicroLayer
Stains

NATURAL DSL INSTRUCTION FOR USE

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Natural® CERAMIC SYSTEM
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